Albizia anthelmintica

Brongn.

Fabaceae - Mimosoideae

LOCAL NAMES
Afrikaans (kersieblombooom); Arabic (masaka,girfat ad dud); English (worm-cure albizia); Somali (resomagali); Tswana (monoga); Zulu (umtakinya,umnalahanga,monoga)

BOTANIC DESCRIPTION
Albizia anthelmintica is a thorny/spiny, deciduous, multi-stemmed, medium canopied tree growing to about 8m. Bark smooth, gray to brown. Young branchlets glabrous or sometimes shortly pubescent, twigs are often spine-tipped.

Leaves bipinnate in 1-5 pairs, leaflets opposite, 7-36 mm long, 6-31 mm wide, apex mucronate.

Flowers usually on leafless twigs, pedicels 0.5-5.5 mm long. Calyx pale greenish, 3-5 mm long. Corolla pale green 6-12 mm long, glabrous, staminal filaments white, about 1.5-2 cm long.

Fruit a pod, 7-18 cm long, 1.5-2.9 cm wide, straw colored, papery and pointed.

Seeds round and flattened, 6-8 per pod, 9-13 mm in diameter.

The genus was named after Filippo del Albizzi, a Florentine nobleman who in 1749 introduced A. julibrissin into cultivation.

The latin specific epithet arises from the common medicinal use of this tree’s parts for deworming. The species is becoming rare due to over-utilisation, a typical case is Kordofan area of Sudan.

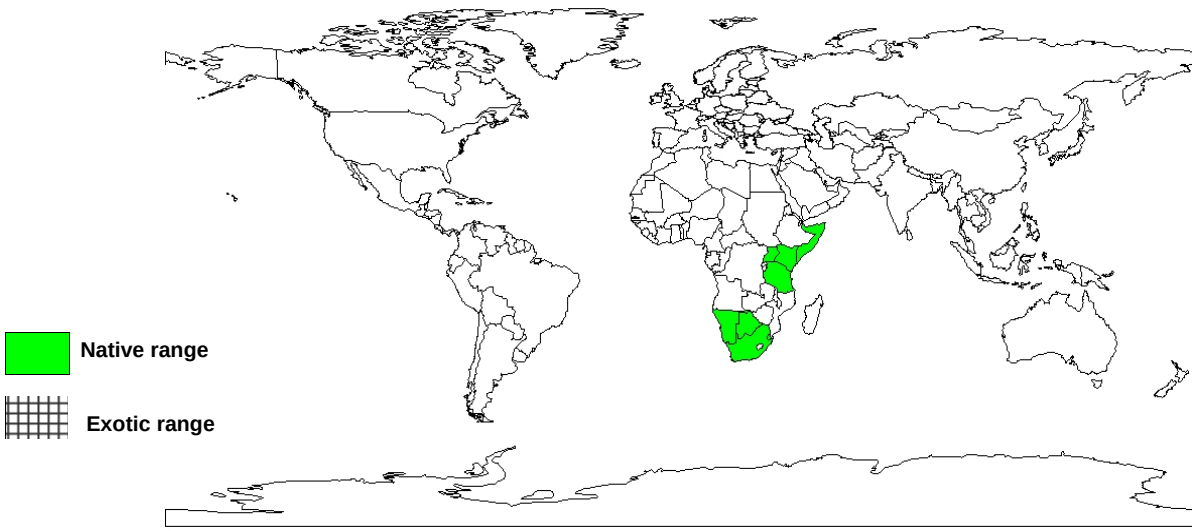
BIOLOGY
A. anthelmintica is hermaphroditic normally flowering between January and October in the Sahel , eastern and southern Africa regions and fruiting between June and October.

ECOLOGY
A. anthelmintica commonly occurs in deciduous or evergreen bushland and scrubland especially along seasonal rivers and on termite-mound clump thickets.

BIOPHYSICAL LIMITS
Altitude: 400-1500 m
Mean annual temperature: up to 40 deg C
Mean annual rainfall: 400-1 000 mm
Soil type: Prefers clayey soils but is also known to perform well in deep, loose red sand soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Botswana, Kenya, Namibia, Somalia, South Africa, Swaziland, Tanzania, Uganda
Exotic:



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS
Food: A. anthelmintica roots are commonly used as additive in meat and milk based soups.

Fodder: Pods, leaves and shoots are browsed by animals.

Timber: Wood used for poles, posts, furniture, implement handles, carvings and turnery.

Poison: A tri- and tetra-saccharide from A. anthelmintica, having triterpene prosthetic groups possess potent molluscicidal activity.

Medicine: The stem bark is widely used as a purgative and anthelmintic. In Somalia, the tree is said to provide a cure for gonorrhoea, the roots are cooked in chicken broth. The twigs are used as toothbrushes for oral hygiene.

SERVICES
Erosion control: This tree is known to root deeply and has an important role in soil protection.

Shade or shelter: A. anthelmintica is a shade tree.

Nitrogen fixing: The species nodulates and is nitrogen fixing.

Ornamental: An attractive tree in bloom, with fluffy-cream coloured, scented flowers. Suitable for aesthetic purposes.

Boundary or barrier or support: Poles and posts from A. anthelmintica are used for fencing.

Intercropping: A. anthelmintica is deep rooting and has good intercropping potential.

Other services: The bark, rich in saponins, is used in milk coagulation.

TREE MANAGEMENT
Initial growth is slow and mainly horizontal. Seedlings need protection from browsers. The tree is susceptible to wind damage but can withstand frost and drought.

PESTS AND DISEASES
Wood attacked by termites.

FURTHER READNG

Brenan JPM. 1959. Leguminosae (I) subfamily Caesalpinioideae. In: Flora of Tropical East Africa. Crown Agents, London.

Carpani G et al. 1989. Saponins from Albizzia anthelmintica. Phytochemistry. 28(3): 863-866.

Chapman L, Johns T and Mahunnah RLA. 1997. Saponin-like in vitro characteristics of extracts from selected non-nutrient wild plant food additives used by Maasai in meat and milk based soups. Ecology of Food and Nutrition. 36(1): 1-22.

MacDicken GK. 1994. Selection and management of nitrogen fixing trees. Winrock International, and Bangkok: FAO.

Vogt K. 1995. A field guide to the identification, propagation and uses of common trees and shrubs of dryland Sudan. SOS Sahel International (UK).

Ying BP and Kubo I. 1988. New molluscicidal saponins from Albizia anthelmintica. Abstracts of Papers-American Chemical Society National Meetings. No. 196.

SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/af/treedb/)